

Cracked!

Eggs are not a typical topic of discussion in *BEEF* magazine. But eggs and how they are produced recently had the full attention of beef and pork producers, as well as veterinarians.

The United Egg Producers (UEP), an umbrella organization encompassing five regional egg cooperatives, has long had an adversarial

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relationship with animal rights groups. About a year ago, however, UEP approached the Humane Society of the U.S. (HSUS) about collaborating on federal legislation regarding housing for laying hens. Among other things, the legislation would specifically outline the exact pen space requirements, also called "enriched cage housing."

At a superficial level, this may seem rational. But this seemingly rational legislation resulted in great dissension between poultry organizations, beef and pork production groups, veterinary organizations, and even animal rights groups.

In the end, the Egg Products Inspection Act Amendment (S. 3239) wasn't attached to the Senate version of the farm bill; beef and pork producer and veterinary groups were instrumental in that. But the

measure is likely to come up again during formulation of the House version of the farm bill.

When the measure failed in the Senate, however, the animal rights groups involved attempted to point their collective finger at the beef and pork groups, claiming we don't care about animal welfare. This, of course, is ludicrous. If providing more room is in the best interest of the laying hen, I know of no one who would oppose to it.

However, I know many people who are opposed to such federal legislation. These are hard-working farm families who not only care for the animals in their charge, but care deeply about the consumers of their products.

The bottom line is that a federal mandate that prescribes how farm animals should be raised should deeply concern all of agriculture. A federal law isn't necessary, and the success of the beef industry's Beef Quality Assurance (BQA) program is a case in point. Through the program, U.S. beef producers voluntarily responded to consumer concerns and made significant changes to enhance the quality of their product. BQA has been a resounding success story.

Why didn't UEP put together a quality assurance program that required producers to provide this enriched cage housing? They did; it's called UEP Certified (www.uep-certified.com).

However, it didn't seem to help with pressure from animal rights groups. But when UEP tossed federal legislation into the pot, these



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groups jumped on the opportunity to get it on the books.

Of course, some animal rights groups were vehemently opposed to the legislation; they didn't feel it went far enough. Still, UEP's efforts to include animal rights groups in the passage of this mandate gave UEP a reprieve from assaults from such groups, as well as lending legitimacy to these same groups.

Producing safe, wholesome food is a tremendously gratifying endeavor for livestock producers. And agriculture has proven that it is responsive to consumer demands.

There are two primary reasons to alter how we produce food:

- The consumer asks for it.
- Science supports the change.

As it stands currently, consumers are blessed with the choice of a wide variety of food choices and how those foods are raised. And this has been done without federal legislation.

The science of animal welfare is ever-evolving. It will require an act of Congress to legislate how animals are to be raised. And if somewhere down the road, new science contradicts the federal legislation, it would take another act of Congress to change it.

Food producers can be much more responsive to new developments when their progress isn't impeded by federal mandates. ■

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Keeping potatoes happy and healthy

By Dr. E. Kirsten Peters

The next time you eat a baked spud you might want to think of the agricultural scientists who are hard at work trying to help the humble potato deal successfully with some significant diseases.

Students of history will remember the Irish potato famine of 1845-1852. The denizens of Ireland had come to depend on potatoes as their main staple crop. The plant did well in the wet Irish climate, and the potato produced a lot of food for each acre that was planted. But a crisis arose when whole potato fields fell victim to the blight, a disease that wiped out any hope of harvest all over the island.

In the end, more than a million people died and another million had to leave Ireland as the blight held sway. Perhaps never has a single disease of plants produced such misery in a concentrated period of time.

But there's more to potato disease than blight, and therein hangs an interesting and much more modern tale.

Potatoes are important to us for reasons that go beyond the lip-smacking taste of a French fry. The tubers are a source of carbs, and they also are rich in potassium, iron and Vitamin C. They contain protein, and when baked or boiled, potatoes harbor no fat.

But potato plants face some significant challenges out in the field where they grow. One of them is a disease with the slightly comical name of "corky ringspot." The name sounds a bit like a child's game, but CRS, as it is sometimes known, is a serious threat to potatoes and the farmers who grow them. It leads to mars and marks in the tubers, including dark arcs about the size of a fingernail you may have seen in potatoes when you peeled them. Other abnormalities are granular regions, the type of flaw that gave the name "corky" to the disease.

CRS is caused by a virus that sickens the potato plant. Just as you can become sick from a viral infection like influenza, so can a plant — in fact, one of the main things certain agricultural scientists do is try to help plants resist viruses. The virus that causes CRS appears to infect the plant by way of a microscopic worm in the soil called a nematode. In other words, the nematode's actions around the roots and tubers of the plant make it possible for the virus to infect the unlucky potato plant. Dark mars and corky areas in the tuber then develop.

"We say the virus is 'vectored' by the nematode," Assistant Professor Axel Elling of the Department of Plant Pathology at Washington State University, said to me when I was first learning about CRS disease.

Elling and his scientific colleagues are starting to look into CRS disease. A lot hinges on their work because if only a small percentage of potatoes shows a lot of CRS symptoms, a farmer's entire shipment can be rejected — meaning the poor grower has nothing to sell after his investment of labor and costly inputs like fuel and seed.

"CRS is a major challenge for the potato industry," Elling told me.

And research into CRS is just getting off the ground. The hope is that a more thorough understanding of how the virus interacts with the nematodes to infect the potato plant can help in the management of the disease.

Agricultural scientists do a lot of work that benefits us each day. They are in the front lines fighting against diseases in plants and livestock that threaten our food supply. When they are successful, we just adapt to our good fortune and think next to nothing about it.

Back in the old days when most of us lived on farms we had a pretty clear picture of how various diseases threaten crops and livestock. But now that most of us get our food from the grocery store and don't even tour the places where it is grown, we can be quite ignorant of what affects the wide range of crop plants on which we really do depend.

But those of us who like to eat our three squares a day have a vested interest in agricultural research — the sort of work Prof. Elling and others do each day and that is almost never publicly celebrated.

Pass the spuds, please — and wish the ag researchers well.

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Now pick on melons

It was a fight the beef-processing industry was always going to lose. Ever since USDA declared *E. coli* O157:H7 an adulterant in non-intact raw beef in 1994, ground beef has been the lightning rod for federal officials, politicians and consumer groups in the ongoing debate about the safety of America's food supply.

Public health data clearly indicate there is no public health crisis related to non-STECS in ground beef.

The beef industry has spent hundreds of millions of dollars over the past 18 years on food safety intervention steps, mostly in processing plants. The results have been tangible. Data from the Centers for Disease Control and Prevention reveal that *E. coli* O157:H7 infections declined 51% from 2000 to 2010.

Moreover, the prevalence of *E. coli* O157:H7 in ground beef declined 72% from 2000 to 2010. That's despite the fact that USDA research says that as many as 100% of the lots of cattle that arrive at packing plants may test positive for the pathogen. Packers are obviously doing an outstanding job in preventing the pathogen from getting into non-intact beef.

Consider also that beef isn't the only source of *E. coli* O157:H7-related illnesses. In fact, it represented only 25% of the outbreaks and cases worldwide since 1982, according to a

review by the Food Research Institute at the University of Wisconsin. Other common sources of O157 illnesses include water, produce, other meat products, the environment, dairy and person-to-person spread.

None of this, however, deterred federal public health officials from setting their sights on six additional pathogenic *E. coli* strains (known as non-STECS) in beef. Consumer and food safety groups had urged USDA for several years to declare the strains as adulterants in non-intact beef.

The industry countered that not enough was known about the strains to warrant such action. Declaring them an adulterant would not be supported by science and would not benefit public health, it contended.

However, USDA officials had made up their minds. Perhaps the last straw was that Costco (which makes its own ground beef) and lean-beef manufacturer Beef Products, Inc., started holding and testing their products for the six strains. It was 60 days later that USDA announced it would declare the six strains as adulterants and would start testing for them next March.

As with O157:H7, any product found to contain any of the six strains will be banned from sale to consumers and will have to be diverted to use as cooked product. Product found to contain the strains after they have been sold will be subject to recall.

Consumer advocates, some scientists and the two companies already

testing for the strains applauded USDA's move. The American Meat Institute (AMI), an industry trade group, criticized it.

One of AMI's key objections is that beef is being unfairly singled out. Public health data clearly indicate there is no public health crisis related to non-STECS in ground beef, said AMI's Jim Hodges. While USDA contends the strains are responsible for more than 112,000 illnesses/year in the U.S., with more than 36,000 attributable to beef, AMI says only three illnesses have been actually linked to non-STECS in beef. Moreover, AMI noted that USDA in its policy notice in mid-September acknowledged that it doesn't know how many illnesses will actually be prevented by the move.

Compare that to the 72 illnesses and 13 deaths (at time of writing) linked to Colorado-grown melons contaminated with *Listeria*. The cases were all traced back to one farm, which recalled millions of melons in mid-September, ironically at the same time USDA was declaring the non-STECS as adulterants.

So what are the feds going to do about melons, or about the other fruits and vegetables that carry *Listeria*, *Salmonella* and other pathogens? It's time they stopped picking on beef and turned closer attention to melons. ■

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